

Therapeutic Biomaterials

U N I V E R S I T Y O F U T A H

Center

The Center for Therapeutic Biomaterials (CTB) prepares and uses new biomaterials for reparative medicine for the 3-D culture of human cells. The Center Develops applications of biopolymers and hydrogels for clinical use in wound repair, prevention of surgical adhesions, and extending the life of donated organs as well as permitting evaluation of cell response to various compounds. The compounds also have application in a variety of non-medical applications, such as cosmetics.

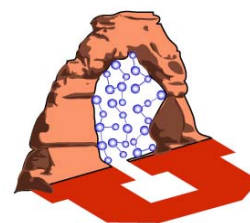
TECHNOLOGY

In year one, the CTB made substantial progress in engineering its core technology -- the synthetic extracellular matrix (sECM) -- in order to produce materials specific for each of the product areas above. The CTB achieved all of its technological specific aims. By developing materials for healing of acute and chronic wounds, bone and cartilage repair, sinus surgery, repair of ruptured eardrums, soft tissue reconstruction, engineering of functional liver tissue in vivo, revascularization of damaged myocardial tissues, and prevention of post-surgical adhesions.

Moreover, the Center established protocols for growth of primary rat liver cells in the 3-D sECM for drug testing in vitro, for obtaining and culturing primary human adipose-derived stem cells and human cancer cells in mouse xenograft models.

ACCOMPLISHMENTS

The Center's new chemical (HA) derivative (Carbylan™), received the 2005 Stoel Rives Innovation Award in Chemistry. Sentrx Surgical, Inc. was launched during the first year with an option to license from CTB, although licensing was not complete before the end of the reporting year. In addition, the CTB's spin-out company, Sentrx Surgical received three NIH STTR awards in the first year, totaling \$300,000 in total contracts. In 2004-05, the Director of CTB, Dr. Prestwich, delivered more than 15 invited academic talks and another 15 investor and corporate talks world-wide to promote the CTB's mission and foster commercialization of the technology. Another Utah firm, U.S. Tissue & Cell has an option to license to the skin life preservation technology.



Center for Therapeutic Biomaterials

THINK TANK

What if there was...

**A way grow cells
in culture that
allowed them to
behave like cells
inside the body?
And those cells
could now detect
drug toxicity or
mimic human
response to
compounds?**

**Glenn D. Prestwich
The University of Utah
419 Wakara Way Ste 205
SLC, Utah 84108
Phone: 801 585-9051
gprestwich@
pharm.utah.edu**